Happy Water Year 2018!

Forecast Summary:
A Water Year 2018 Water Supply Index (WSI) forecast for conditions as of December 1, 2017 is posted at http://cdec.water.ca.gov/cgi-progs/iodir_ss/wsi . The accretions forecast will be sent at a later time. The WSI forecast is based on the precipitation and runoff (full natural flow) through November 2017 and can be summarized as follows:

Sacramento River Unimpaired Runoff Water Year Forecast (50 percent exceedance)	**19.6 (110 percent of average)**
Sacramento Valley Index (SVI) (50 percent exceedance)	**9.3 (Wet)**
San Joaquin Valley Index (SJI) (75 percent exceedance)	**2.8 (Below Normal)**

Runoff:
Unimpaired flows for the 2016-2017 water year have run at the following rates of average:

Region	October-November Runoff (%)	November Runoff (%)
Sacramento Valley Index (4 rivers)	117	131
San Joaquin Valley Index (6 rivers)	147	163
Tulare Lake Basin (4 rivers)	109	99

Precipitation:
The month of November was particularly wet in the Sacramento River Valley region (170% of average) and the Northern Sierra 8-Station Precipitation index (168% of average). While precipitation has accumulated at an above average pace in the Northern Sierra and Sacramento River Valley region, it has fallen below average in the San Joaquin and Tulare Lake basins. The San Joaquin 5-Station index was just below average (93%) in November while the Tulare Lake 6-Station index was at 60 percent of average.

Precipitation for the 2016-2017 water year accumulated at the following rates of average:

Region	WY accumulated precipitation (%) through November 30, 2016
Sacramento River Valley	124
San Joaquin River Valley	74
Tulare Lake Basin	43
Statewide	85
Regional Precipitation Indices	**As of December 8, 2017**
Northern Sierra 8-Station Index	103 (12.3 inches)
San Joaquin 5-Station Index	56 (4.8 inches)
Tulare Basin 6-Station Index	37 (2.0 inches)

Snowpack:
The snowpack as of the morning of December 8, 2017 stands at the following (based on snow sensors):

Region	Snow Water Equivalent (inches)	% of Average (Apr 1)	% of Average (Dec 8)
Northern	1.9	7	34
Central	2.6	9	42
Southern	2.1	8	45
Statewide	2.3	8	40

Weather and Climate Outlooks:
The 6-day weather forecast calls for dry, mild conditions due to a persistent high pressure system anchored off the coast of California. Thus, no precipitation is forecast anywhere in the state during the next six days. Daytime temperatures will generally range from 5-10 degrees above normal and even warmer along the Southern California coast, while

overnight lows will be closer to average. The freezing levels for the most part will range from 10,500 feet to 13,500 feet in the Sierra Nevada with areas of frost in the Central Valley possible.

The NWS Climate Prediction Center (CPC) one-month outlook for December, valid November 30, indicates increased chances of above normal temperatures and below normal precipitation for the entire state.

The CPC three-month (December-January-February) outlook, posted November 16, indicates increased chances of above normal temperatures for the lower all areas of the state south of the Sacramento region including most of the Sierra Nevada. For the areas to the north of this region including the Feather, Sacramento, and Trinity watersheds, the outlook calls for equal chances of above or below normal temperatures. The same outlooks calls for increased chances of below normal precipitation for the southern half of California from the San Francisco Bay area southward, including the Central and Southern Sierra Nevada. For the areas north of this region, including the Lake Tahoe and Feather River watersheds, the outlook calls for equal chances of above or below normal precipitation.

According to the latest El Nino/Southern Oscillation (ENSO) discussion issued by the Climate Prediction Center on December 4, 2017, weak La Niña conditions are present. Equatorial sea surface temperatures (SST) are below average in the central and eastern Pacific Ocean. La Niña conditions are favored to persist (~65-75% chance) through winter 2017-18.

Next Update:
The next WSI forecast for conditions as of January 1, 2018 will be available on January 9, 2018. If you have any questions regarding this forecast, please contact a member of the Snow Surveys staff.